



FINAL YEAR PROJECT REPORT

**ONLINE AUCTION WEBSITE
IMPLEMENTED USING WEB 3.0**

**In fulfillment of the requirement
For degree of
BS (COMPUTER SCIENCES)**

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DECLARATION

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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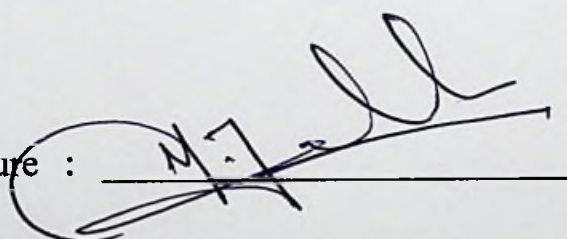
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APPROVAL FOR SUBMISSION

We certify that this project report entitled **“ONLINE AUCTION WEBSITE IMPLEMENTED USING WEB 3.0”** was prepared by **Muhammad Ibrahim, Muhammad Aun and Shah Hamza** has met the required standard for submission in partial fulfilment of the requirements for the award of Bachelor of Science in Computer Science at Bahria University, Karachi.

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We would like to thank all those who have helped us in the completion of this project. It is a pleasure to express our gratitude to our respected supervisor, Mr. Taha Alotaibi, for his invaluable advice, guidance and his continuous support during the development of this project.

Specially dedicated to

My beloved grandmother, mother and father

Muhammad Ibrahim

My beloved grandmother, mother and father

Shah Hamza

My beloved grandmother, mother and father

Muhammad Aun

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ABSTRACT

The objective of the project 'Auction Website Implemented Using Web 3.0' is to

We would like to thank everyone who had contributed to the successful completion of this project. We would like to express my gratitude to my project supervisor, Mr. Talha Alam for his invaluable advice, guidance and his enormous patience throughout the development of the research.

In addition, we would also like to express our gratitude to our loving parents and friends who have helped and given us encouragement.

This project aims to advance a more inclusive and open marketplace for digital assets by building an NFT auction platform utilizing Web 3.0. The platform that results will enable artists, creators, and collectors to conduct safe and open transactions, promoting the uptake and expansion of the NFT market. The unique NFT (Non-Fungible Token) auction platform being developed as part of the final year project would make use of Web 3.0 technology.

ONLINE AUCTION WEBSITE IMPLEMENTED USING WEB 3.0

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ABSTRACT

The objective of our project "Auction Website Implemented Using Web 3.0" is to create a decentralized and secure platform for the auction of NFTs (non-fungible tokens) at fast speeds. The platform is designed with a user-centred approach, incorporating the needs and expectations of stakeholders at every stage of development. This project uses blockchain technology to develop the website. The main advantage of using blockchain technology is that increases trust, security, transparency and the traceability of the data share across a business network.

This project uses popular technologies like Hardhat (framework for Ethereum Development), Solidity to create smart contracts, Ethereum for deploying smart contracts, Chai.js to test smart contracts, IPFS (Interplanetary File System) for storing NFT assets decentralised, and cutting-edge frontend frameworks like React.js for creating a responsive and engaging user interface will all be part of the development stack. Users will be able to authenticate and handle transactions without any difficulty thanks to integration with popular Web 3.0 wallets like MetaMask wallet. To guarantee immutability, transparency, and tamper-proof records of ownership and transactions, the system will make use of blockchain technology. Automating auction procedures with smart contracts will provide fair and safe transactions without the use of middlemen and implements the business logic and rules of application. The project will concentrate on important aspects including minting NFTs, establishing auction parameters like duration and highest price, managing bidding and auctions, and enabling safe ownership transfers of NFTs.

This project seeks to advance a more inclusive and open marketplace for digital assets by building an NFT auction platform utilising Web 3.0. The platform that results will enable artists, creators, and collectors to conduct safe and open transactions, promoting the uptake and expansion of the NFT market. The unique NFT (Non-Fungible Token) auction platform being developed as part of the final year project would make use of Web 3.0 technology.

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